CA3242

Quad-Gated Inverting Power Driver For Interfacing Low-Level Logic to High Current Load

August 1998

Features

- **Driven Outputs Capable of Switching 600mA Load Currents Without Spurious Changes in Output State**
- **Inputs Compatible with TTL or 5V CMOS Logic**
- **Suitable for Resistive or Inductive Loads**
- **Output Overload Protection**
- **Power-Frame Construction for Good Heat Dissipation**

Applications

- **Relays**
- **Solenoids**
- **AC and DC Motors**
- **Heaters**
- **Incandescent Displays**
- **Vacuum Fluorescent Displays**

Ordering Information

PART NUMBER	TEMPERATURE RANGE	PACKAGE
CA3242E	-40°C to +105°C	16 Lead Plastic DIP

Description

The CA3242 quad-gated inverting power driver contains four gate switches for interfacing low-level logic to inductive and resistive loads such as: relays, solenoids, AC and DC motors, heaters, incandescent displays, and vacuum fluorescent displays.

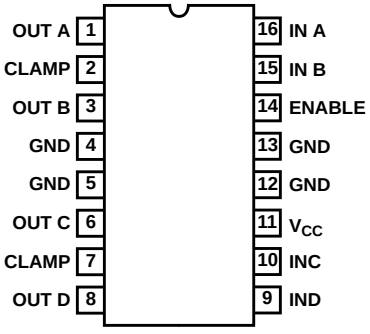
Output overload protection is provided when the load current (approximately 1.2A) causes the output V_{CE}(sat) to rise above 1.3V. A built-in time delay, nominally 25µs, is provided during output turn-on as output drops from V_{DD} to V_{SAT}. That output will be shut down by its protection network without affecting the other outputs. The corresponding Input or Enable must be toggled to reset the output protection circuit.

Steering diodes in the outputs in conjunction with external zener diodes protect the IC against voltage transients due to switching inductive loads.

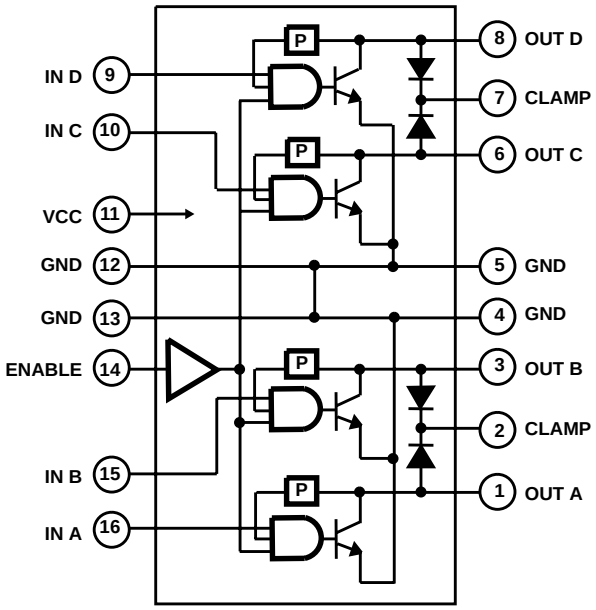
To allow for maximum heat transfer from the chip, the four center leads are directly connected to the die mounting pad. In free air, junction-to-air thermal resistance ($R_{\theta JA}$) is 60°C/W (typical). This coefficient can be lowered by suitable design of the PC board to which the CA3242 is soldered.

Pinout

CA3242 (PDIP)
TOP VIEW



Block Diagram



TRUTH TABLE

ENABLE	IN	OUT
H	H	L
H	L	H
L	X	H

CAUTION: These devices are sensitive to electrostatic discharge; follow proper IC Handling Procedures.

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